



Fig. 1

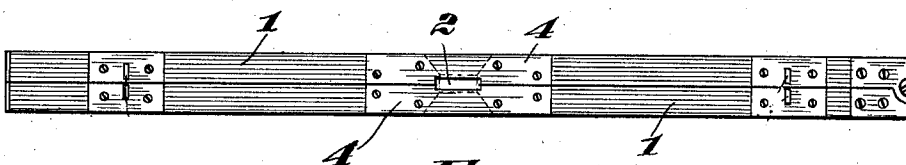


Fig. 2

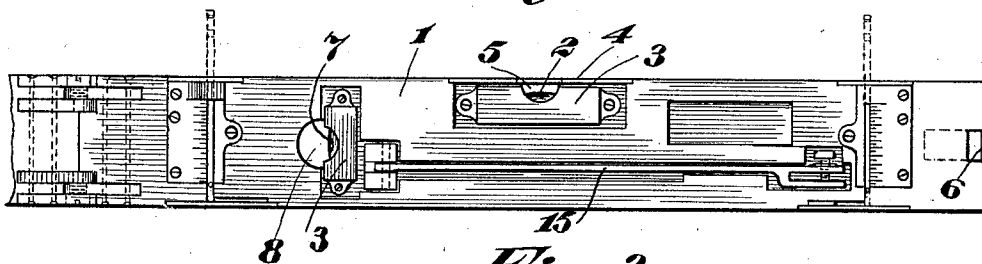


Fig. 3

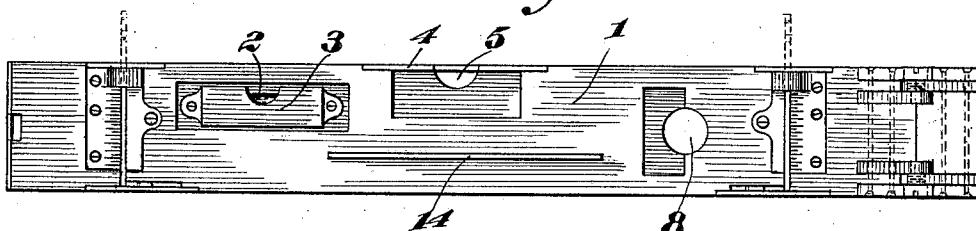


Fig. 4

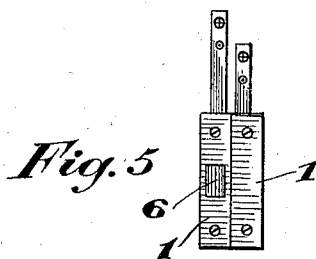


Fig. 5

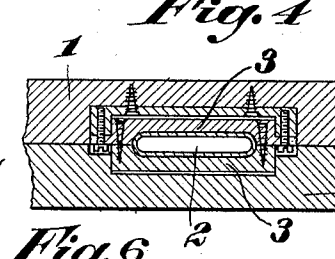


Fig. 6

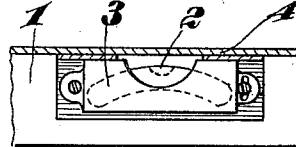


Fig. 7

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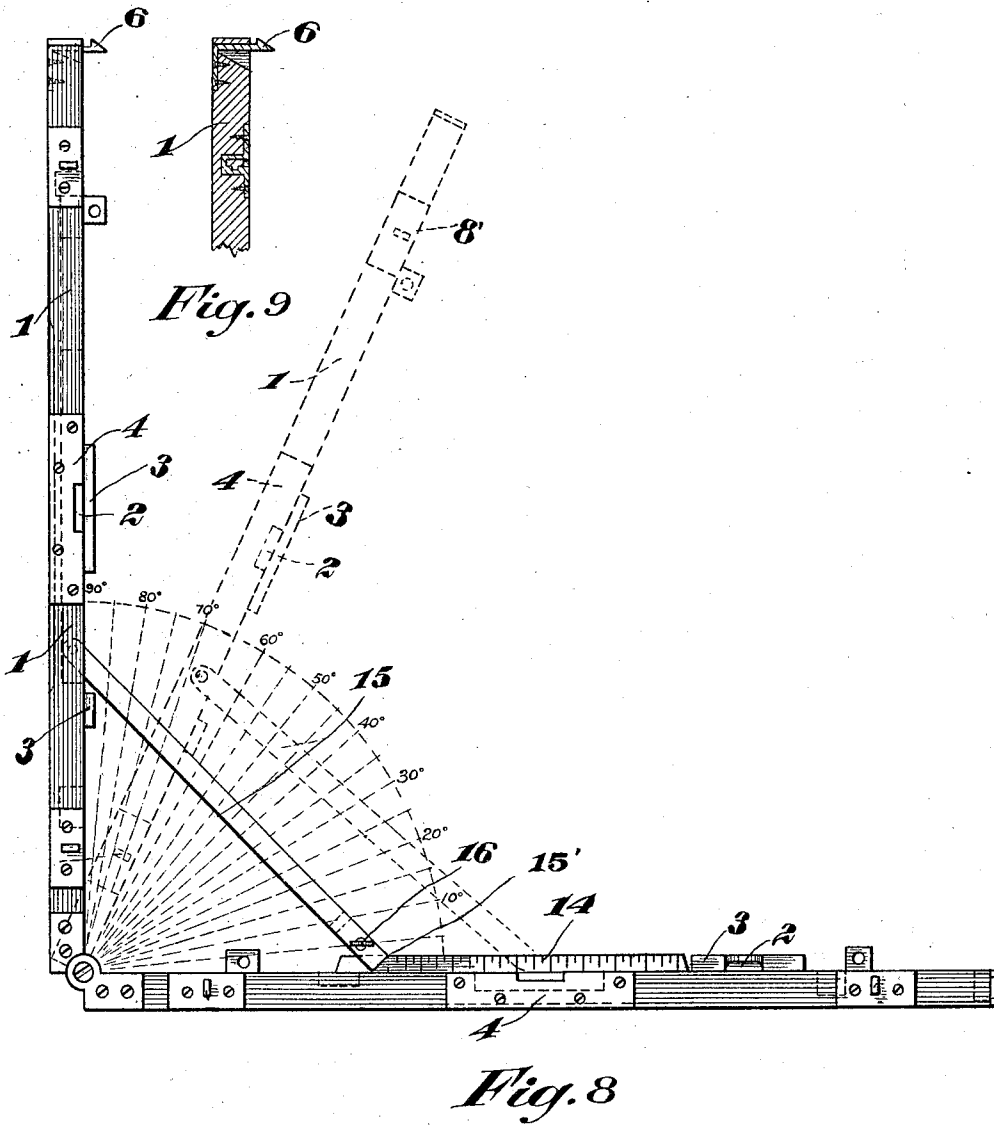
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COMBINATION LEVEL.
APPLICATION FILED MAY 17, 1911.

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2 SHEETS—SHEET 2.

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COMBINATION-LEVEL.

1,029,744.

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To all whom it may concern:

Be it known that I, AZADE DIONIS DESILETS, a subject of the King of England, residing at Sherbrooke East, in the Province of Quebec, Canada, have invented certain new and useful Improvements in Combination-Levels; and I do hereby declare that the following is a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention to be hereinafter described relates to a level.

Broadly speaking, it comprises two separate level-beams hinged together, a level carried by each level-beam, means for adjusting the level beams angularly with relation to one another, and means for holding the level beams in such adjusted positions.

In order to more clearly disclose the construction, operation, and use of the invention, reference should be had to the accompanying drawings forming part of the present application.

Throughout the several figures of the drawings like reference characters designate the same parts.

In the drawings: Figure 1 is a side elevation of the invention, folded and ready for use as a common carpenter's level; Fig. 2 is a top plan view of Fig. 1; Fig. 3 is a side elevation of the inside of one of the level-beams; Fig. 4 is a similar view of the other level-beam; Fig. 5 is a left-hand end elevation of Fig. 1; Fig. 6 is a fragmentary longitudinal section through the level-beams folded together, showing the mounting of one of the horizontal levels; Fig. 7 is a side elevation of the other horizontal level, showing the means for adjustably supporting it; Fig. 8 is a plan view of the complete level, in open position; and Fig. 9 is a fragmentary longitudinal section.

The main object of the invention is to provide a simple, economical, durable, and compact combination level.

Referring to the drawings in detail, 1 indicates duplicate level-beams hinged together or pivotally connected at one end. Each of these level-beams is provided with a separate and independent level 2 by which it is possible to determine whether or not the level-beam is exactly horizontal. One of these levels is mounted in a block 3 which is seated in a recess formed in the upper longitudinal edge of the level-beam. This block

3 projects from its recess and extends into a similar recess formed in the other level-beam. A cover plate 4 is provided for the upper edge of each of the recesses and each cover plate is provided with a notch. These two notches, when the level-beams are closed together, form an opening through which the bubble may be observed, as in Fig. 2. The level-beams are also each provided with side notches 5 communicating with the recesses and adapted for observation of the bubble, as usual. By this construction, it is possible to use either of the level-beams separately, or both of them together as an ordinary carpenter's level. The two beams are held in closed position by means of a simple spring catch 6 secured to one of the beams and adapted to engage the other,—see Figs. 4, 8, and 9.

In order to render the combination level equally available as a plumb level, one of the level-beams is provided with a plumb level 7 and each level-beam is provided with an opening 8 through which the bubble may be readily observed. The level, as so far described, may be very easily used both as a horizontal level and as a plumb level for any and all kinds of work.

In order to adjust the horizontal levels relatively to the edges of the level-beams, one end of the block containing the level is provided with an elongated slot through which one of the attaching screws is passed,—see Fig. 7. By loosening the screw, the level may be adjusted as desired. Then the screw may be tightened and the block held in place. The plumb level may be similarly arranged, if desired.

The exact angular adjustment of the level-beams relatively to one another may be determined and indicated by means of a scale and index. The scale 14 is secured to the inside face of one of the level-beams while the index arm 15 is pivotally secured to the inside face of the other level-beam. This index arm is formed with a clamping jaw at its free end and provided with a tightening thumb screw 16. While the screw 16 is loose, the arm will swing freely and the relative positions of the level-beams may be changed at will. When the right adjustment has been reached, the thumb screw 16 will be tightened and the scale will be clamped between the arm 15 and its co-operating jaw. The forward corner 15' of the free edge of the arm 15 will fall oppo-

site the graduation which indicates the number of degrees in the angle separating the two level-beams.

In order to render the whole device more compact and easier to carry about, the inner faces of the level-beams are grooved or recessed to permit the seating of the level blocks, and scale index arm, without increasing the size or the thickness of the completed instrument.

It is thought that the operation and use of the invention will be clear from the preceding detailed description.

Changes may be made in the construction, arrangement and disposition of the several parts of the invention without in any way departing from the field and scope of the same, and it is meant to include all such within this application wherein only a preferred form has been disclosed.

Having thus fully described my invention, what I claim as new and desire to protect by Letters Patent is:

1. A device of the character described, comprising two pivotally connected level beams each provided with a recess in its inner face extending downwardly from its upper edge, said recesses being adapted to be alined, a cover plate for each recess and provided with a notch, said notches being adapted to be alined, and a horizontal level mounted in one of the aforesaid recesses and adapted to project into the other of said recesses when the level beams are closed to-

gether, the bubble of said level being readable through the aforesaid notches.

2. A device of the character described, comprising two pivotally connected level beams each provided with a recess in its inner face extending downwardly from its upper edge, said recesses being adapted to be alined, a cover plate for each recess and provided with a notch, said notches being adapted to be alined, a horizontal level mounted in one of the aforesaid recesses and adapted to project into the other of said recesses when the level beams are closed together, the bubble of said level being readable through the aforesaid notches, and means for adjustably securing said level.

3. A device of the character described, comprising two level beams pivotally connected together and each provided with a recess, said recesses being adapted to be alined when the level beams are closed together, a cover plate for each recess and provided with a notch, said recesses being adapted to be alined when the level beams are closed together, a block adjustably mounted in one of said recesses, means for securing said block in adjusted positions, and a level mounted in said block.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

AZADE DIONIS DESILETS.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."